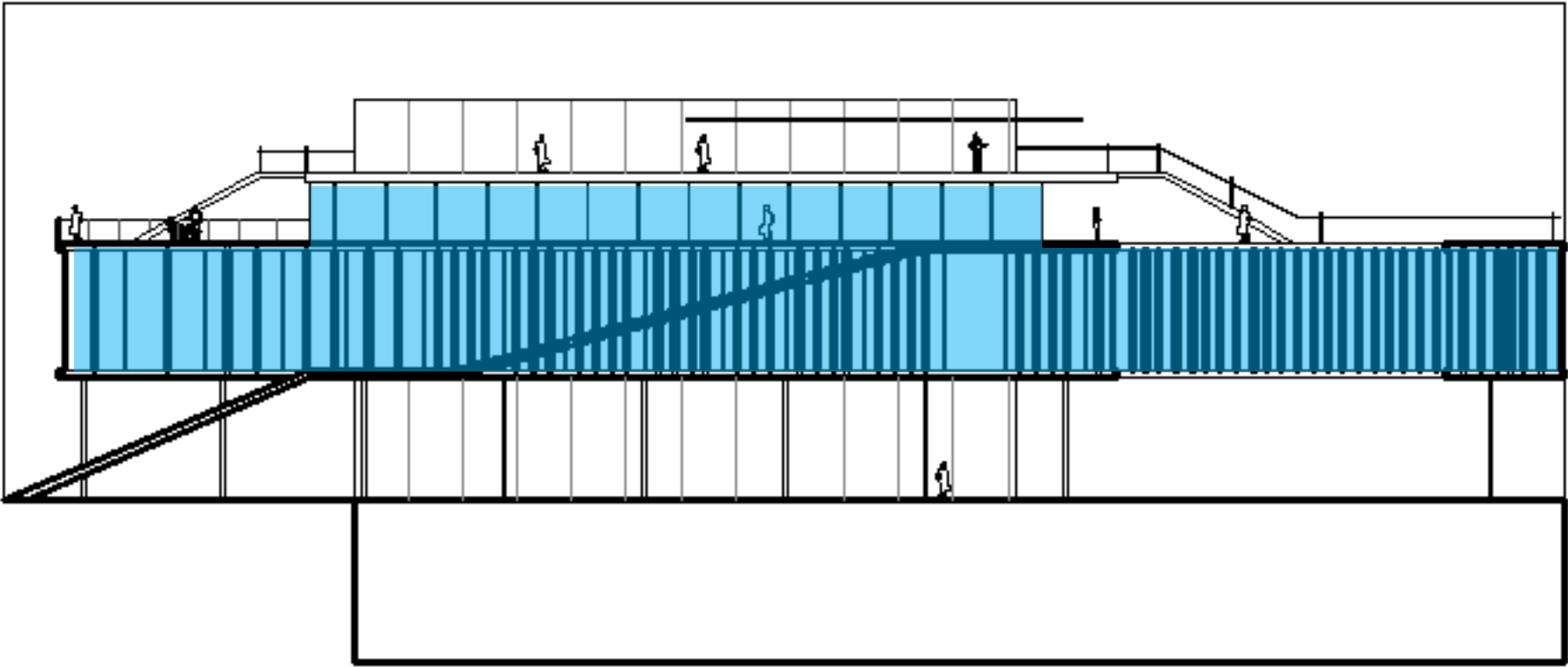
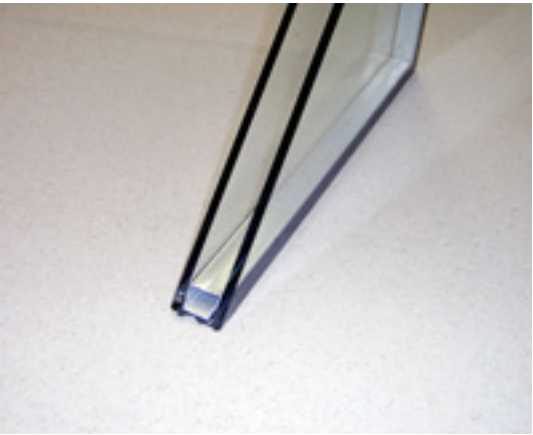
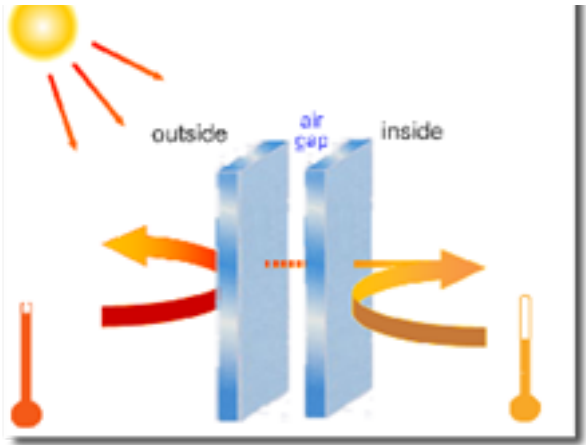


THERMAL PROFILE THROUGH LAYERED SECTION
in North East façade

OUTSIDE TEMP °F: 94.00
INSIDE TEMP °F: 75.00

NODE	MATERIAL	THICK	r/in	R VALUE
OUT	outside	#N/A	#N/A	#N/A
AIR	moving air	#N/A	#N/A	0.25
2	glass	0.63	1.25	0.79
3	air	1.00	1.00	1.00
4	glass	0.63	1.25	0.78
AIR	still air	#N/A	#N/A	0.68
IN	inside	#N/A	#N/A	#N/A

TOTAL: 2.26 3.50
INCHES R-VALUE



0' 10' 50' 100' North East Elevation

Most of the glass is oriented towards the north east since not much solar gain is needed being that the Houston climate is very hot. The thermal envelope on the north east side of the building is double glazed glass with air infill. The graph shows the thermal profile through a section of the facade, showing how the outside temperature at 95 degrees F transitions through the thermal barrier and allows for the inside temperature of the building to be 75 degree F. The resistance to heat flow (R-value) comes out to be 3.5 making the U- factor (measures heat flow rate) 1/3.5 or 0.286. The lower the U factor the more efficient the glass glazing performs.

Thermal Envelope